

Environmental Chemistry Laboratory

Organization

Mission

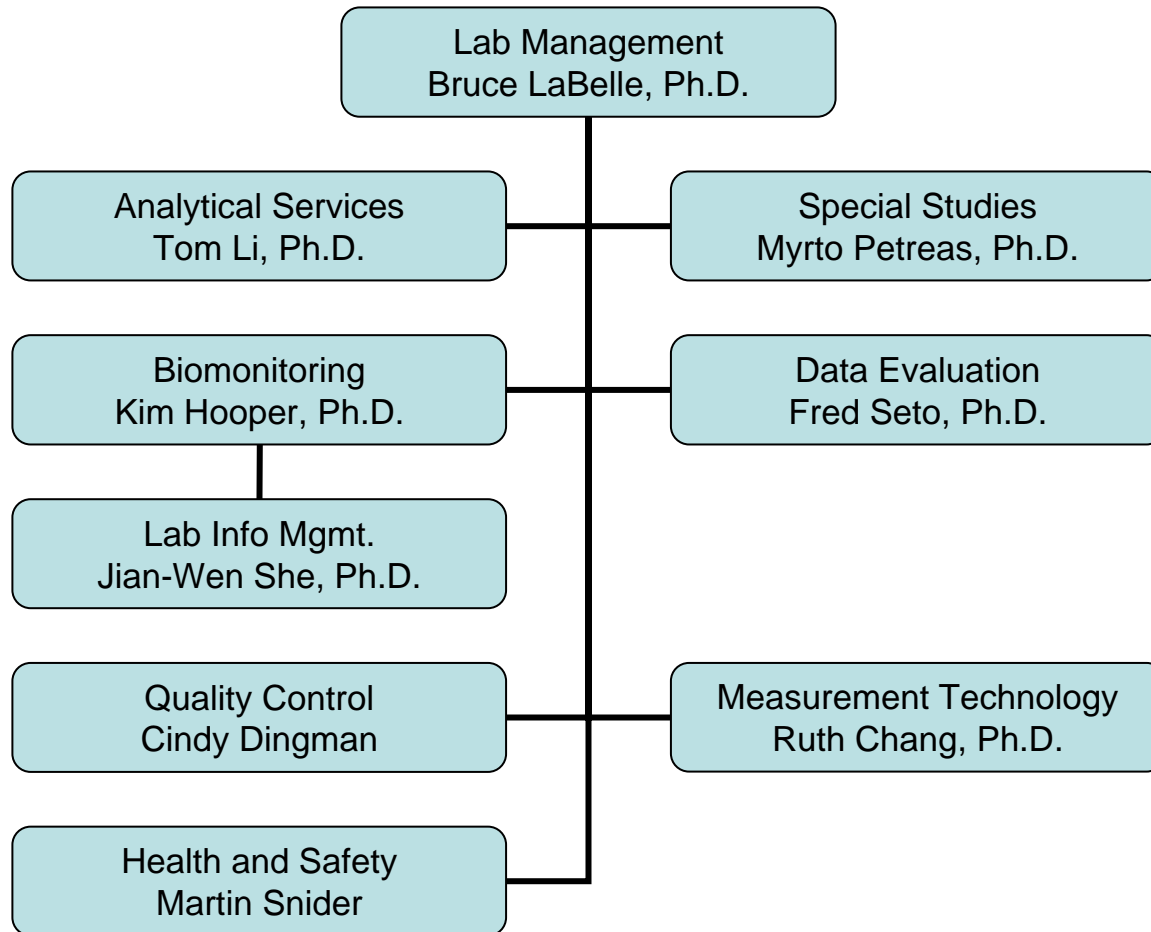
Legal Authority

Functions

Accomplishments

Current Issues

ECL Organization and Functions



Lab Mission

- Real science for:
 - Analytical support for programs
 - Measuring multimedia environmental indicators
 - Basis of regulations
 - Data quality
 - Continuous improvement in environmental measurement technology

Why Not Contract ECL Out?

- Lab fraud investigation: Time traveling, peak-shaving, baseline-scooping, dry-labbing
- Lab auditing
- Data validation
- Reference laboratory function
- Method development: e.g., E-waste, reactivity
- Support from planning to litigation
- Court testimony

Legal Authority

- H&S Code, Chapter 6.5
 - Hazardous Waste Criteria: 25141
 - Laboratory Accreditation: 25198
- H&S Code, Chapter 6.8
 - Quality Assurance Project Plans
 - Management of Data Quality
 - Lab audits and investigations

Lab Resources

- Staff: 53 positions
- As of January, 2004, HML will be consolidated into two lab facilities
 - 700 Heinz Avenue, Berkeley
 - 1449 West Temple Street, Los Angeles
- Current as of 10/1/03

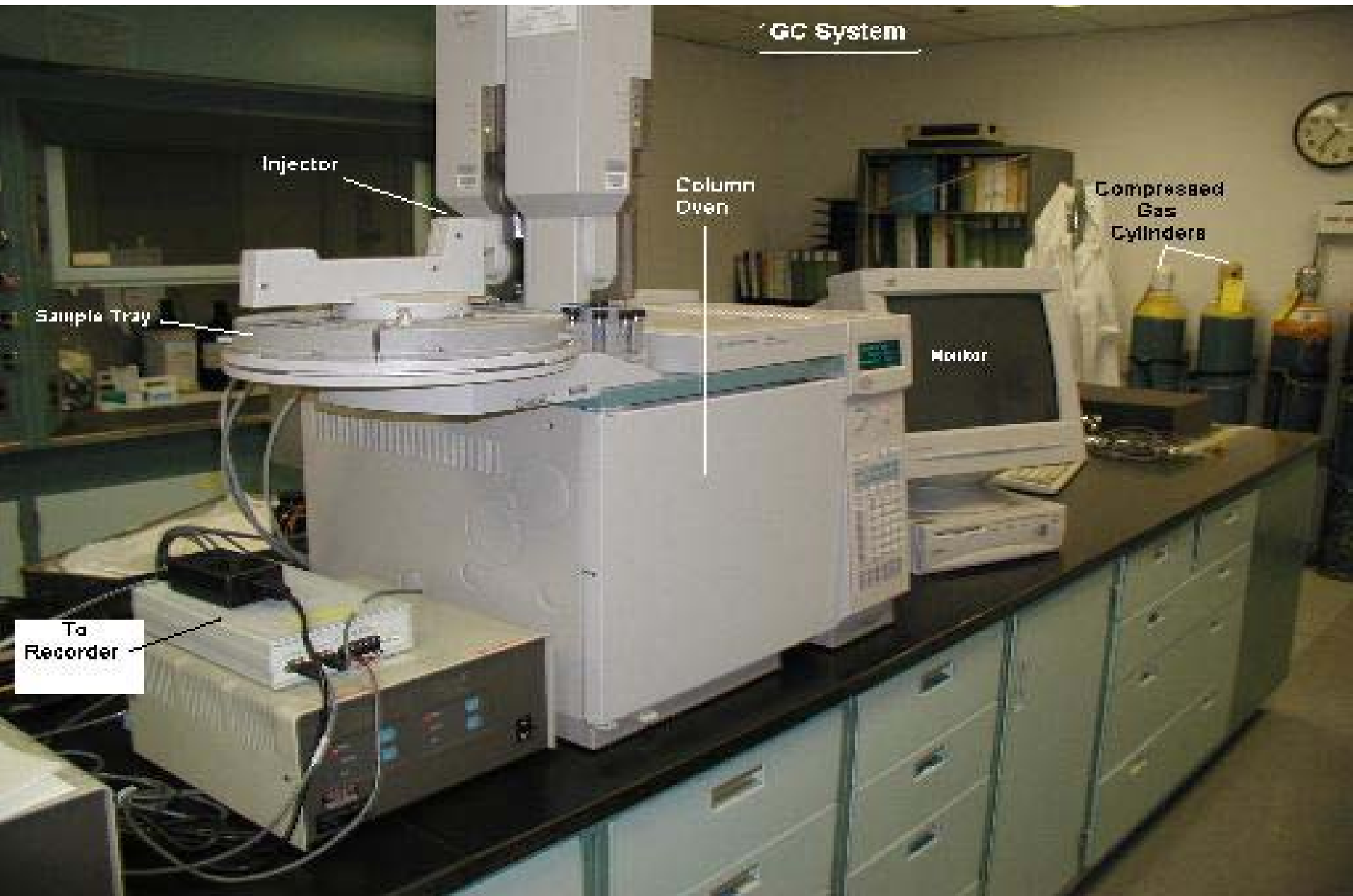
Lab Equipment Assets

- Inorganic Testing
- Atomic Absorption (AA) for metals
- Ion Chromatography (IC) for perchlorate, Cr (VI)
- ICP and ICP-MS for trace analysis
- Organic Testing:
- GC-MS and High Resolution GC-MS for trace testing
- GCs, HPLCs
- Reactivity Testing: Parr Reactor

Perchlorate Testing with Ion Chromatography



PBDEs Testing with Gas Chromatography



High Resolution GC-MS for Dioxin and PBDE congener Testing



Lab Positions by Lab Function

FUNCTION	Positions	
Lab Admin	7	
Special Studies and Biomonitoring	10	
Quality Mgmt and Tech Cert	6	
Analytical Services – LA	10	
Analytical Services - Berkeley	20	
Total	53	

Examples of Recent ECL Accomplishments

- Polybrominated Diphenyl Ethers (PBDEs) in Humans and Animals; data were used to support AB 302
- E-waste: Waste classification of discarded consumer electronic products
- Perchlorate: Data validation and testing to assure quality of data
- Environmental Indicators for Hazardous Waste; first such indicators for California

ECL Current Issues

- Perchlorate
- Brominated Flame Retardants
- E-Waste
- Boeing-Rocketdyne Data Quality Audits
- Chemical Terrorism Preparedness